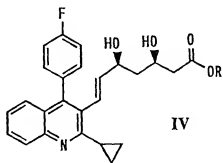


Amendments to the Claims

Kindly amend claims 4, 8, 10 and 11.

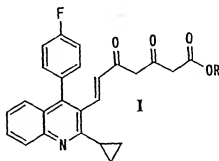
Kindly add new claims 15-24.

1. (Original) A process for producing a compound represented by the following formula (IV):



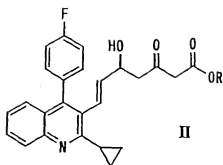
(wherein R denotes a hydrogen atom, an alkyl group, or an aryl group), comprising reducing a compound selected from the group consisting of:

a compound represented by the following formula (I):

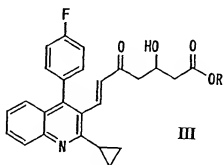


(wherein R is as defined in the formula);

a compound represented by the following formula (II):



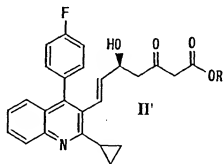
(wherein R is as defined in the formula); and
a compound represented by the following formula (III):



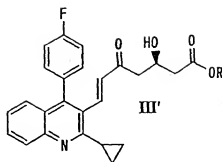
(wherein R is as defined in the formula), by reacting the compound with a cell of a microorganism and/or a cell preparation thereof capable of stereo-selectively reducing a keto group.

2. (Original) The process for producing a compound according to claim 1, wherein the compounds represented by the formulae (II) and (III) are optically active substances each represented by the following formula (II'):

(wherein R is as defined in the formula),



and the following formula (III'):



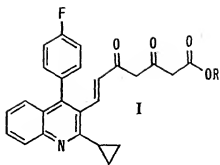
(wherein R is as defined in the formula).

3. (Original) The process for producing a compound according to claim 2, wherein each of the compounds represented by the formula (II') and the formula (III') is obtained from the compound represented by the formula (I).

4. (Currently amended) The process for producing a compound according to ~~any one of claims 1 to 3~~ claim 1, wherein the microorganism is selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Yarrowia*, *Rhodotorula*, *Exophiala*, *Trigonopsis*, *Shizosaccharomyces*, *Wickerhamiella*, *Pichia*, *Saccharomycopsis*, *Saitoella*, *Saccharomyces*, *Rhodospiridium*, *Acinetobacter*, *Brevibacterium*, *Cellulomonas*, *Corynebacterium*, and genus *Curtobacterium*.

5. (Original) The process for producing a compound according to claim 4, wherein the microorganism is selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Rhodotorula*, *Exophiala*, *Shizosaccharomyces*, *Wickerhamiella*, *Pichia*, *Saccharomycopsis*, *Saitoella*, *Saccharomyces*, *Rhodospiridium*, *Brevibacterium*, and *Corynebacterium*.

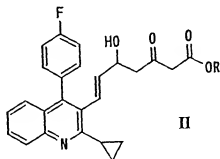
6. (Original) The process for producing a compound according to claim 1, wherein the compound represented by the following formula (I):



(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Yarrowia*, *Rhodotorula*, *Exophiala*, and *Trigonopsis*.

7. (Original) The process for producing a compound according to claim 6, wherein the microorganism is selected from the group consisting of the genera *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, and *Rhodotorula*.

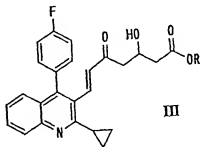
8. (Currently amended) The process for producing a compound according to ~~any one of claims 1 to 3~~ claim 1, wherein the compound represented by the following formula (II):



(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Yarrowia*, *Rhodotorula*, *Exophiala*, *Trigonopsis*, *Shizosaccharomyces*, *Wickerhamiella*, *Saccharomycopsis*, *Saitoella*, *Pichia*, *Saccaromyces*, *Rhodospiridium*, *Acinetobacter*, *Brevibacterium*, *Cellulomonas*, *Corynebacterium*, and *Curtobacterium*.

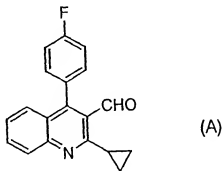
9. (Original) The process for producing a compound according to claim 8, wherein the microorganism is selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Rhodotorula*, *Shizosaccharomyces*, *Wickerhamiella*, *Saccharomycopsis*, *Saitoella*, *Pichia*, *Saccharomyces*, *Rhodosporidium*, *Brevibacterium*, and *Corynebacterium*.

10. (Currently amended) The process for producing a compound according to ~~any one of claims 1 to 3~~ claim 1, wherein the compound represented by the following formula (III):

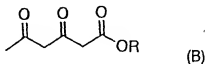


(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Cryptococcus*, *Candida*, *Rhodotorula*, *Filobasidium*, and *Pichia*.

11. (Currently amended) The process for producing a compound according to ~~any one of claims 1 and 4 to 7~~ claim 1, wherein the compound represented by the formula (I) is obtained by a condensation reaction between 2-cyclopropyl-4-(4-fluorophenyl) quinolin-3-carbaldehyde represented by the following formula (A):

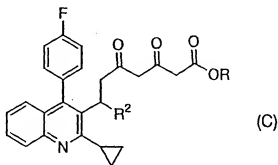


and a compound represented by the following formula (B):



(wherein R denotes a hydrogen atom, an alkyl group, an aralkyl group, or an aryl group).

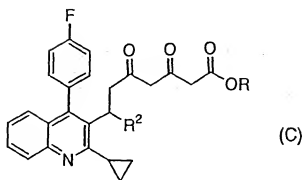
12. (Original) The process for producing a compound according to claim 11, wherein when the compound represented by the formula (I) is produced by the condensation reaction between the compound represented by the formula (A) and the compound represented by the formula (B), a compound represented by the following general formula (C):



(wherein R is as defined in the formula, and R2 denotes a hydroxyl group, a halogen group, a silyloxy group, a sulfonyloxy group, an acyloxy group, an alkoxycarbonyloxy group, an alkylthiocarbonyloxy group, an alkoxythiocarbonyloxy group, or an alkylthiothiocarbonyloxy group) or a salt thereof is provided as an intermediate of the reaction.

13. (Original) The process for producing a compound according to claim 12, wherein the compound represented by the formula (I) is obtained by an elimination reaction in which R2 is removed from the intermediate of the production represented by the formula (C).

14. (Original) A compound represented by the following general formula (C):

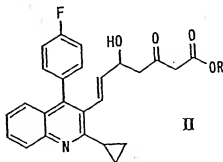


(wherein each of R and R₂ is as defined in the formula).

15. (New) The process for producing a compound according to claim 2, wherein the microorganism is selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Yarrowia*, *Rhodotorula*, *Exophiala*, *Trigonopsis*, *Shizosaccharomyces*, *Wickerhamiella*, *Pichia*, *Saccharomycopsis*, *Saitoella*, *Saccharomyces*, *Rhodospiridium*, *Acinetobacter*, *Brevibacterium*, *Cellulomonas*, *Corynebacterium*, and genus *Curtobacterium*.

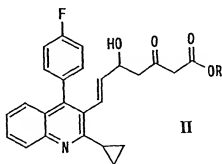
16. (New) The process for producing a compound according to claim 3, wherein the microorganism is selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Yarrowia*, *Rhodotorula*, *Exophiala*, *Trigonopsis*, *Shizosaccharomyces*, *Wickerhamiella*, *Pichia*, *Saccharomycopsis*, *Saitoella*, *Saccharomyces*, *Rhodospiridium*, *Acinetobacter*, *Brevibacterium*, *Cellulomonas*, *Corynebacterium*, and genus *Curtobacterium*.

17. (New) The process for producing a compound according claim 2, wherein the compound represented by the following formula (II):



(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Yarrowia*, *Rhodotorula*, *Exophiala*, *Trigonopsis*, *Shizosaccharomyces*, *Wickerhamiella*, *Saccharomycopsis*, *Saitoella*, *Pichia*, *Saccaromyces*, *Rhodosporidium*, *Acinetobacter*, *Brevibacterium*, *Cellulomonas*, *Corynebacterium*, and *Curtobacterium*.

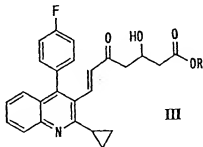
18. (New) The process for producing a compound according claim 3, wherein the compound represented by the following formula (II):



(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Metschnikowia*, *Cryptococcus*, *Candida*, *Filobasidium*, *Ogataea*, *Citeromyces*, *Yarrowia*, *Rhodotorula*, *Exophiala*, *Trigonopsis*, *Shizosaccharomyces*,

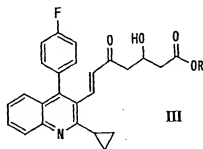
Wickerhamiella, *Saccharomycopsis*, *Saitoella*, *Pichia*, *Saccaromyces*, *Rhodospiridium*, *Acinetobacter*, *Brevibacterium*, *Cellulomonas*, *Corynebacterium*, and *Curtobacterium*.

19. (New) The process for producing a compound according to claim 2, wherein the compound represented by the following formula (III):



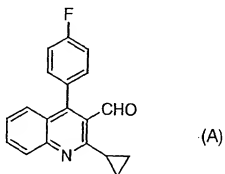
(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Cryptococcus*, *Candida*, *Rhodotorula*, *Filobasidium*, and *Pichia*.

20. (New) The process for producing a compound according to claim 3, wherein the compound represented by the following formula (III):

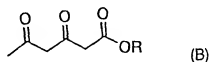


(wherein R is as defined in the formula) is reacted with the microorganism selected from the group consisting of the genera *Cryptococcus*, *Candida*, *Rhodotorula*, *Filobasidium*, and *Pichia*.

21. (New) The process for producing a compound according to claim 4, wherein the compound represented by the formula (I) is obtained by a condensation reaction between 2-cyclopropyl-4-(4-fluorophenyl) quinolin-3-carbaldehyde represented by the following formula (A):

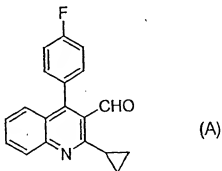


and a compound represented by the following formula (B):

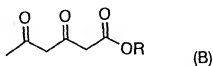


(wherein R denotes a hydrogen atom, an alkyl group, an aralkyl group, or an aryl group).

22. (New) The process for producing a compound according to claim 5, wherein the compound represented by the formula (I) is obtained by a condensation reaction between 2-cyclopropyl-4-(4-fluorophenyl) quinolin-3-carbaldehyde represented by the following formula (A):

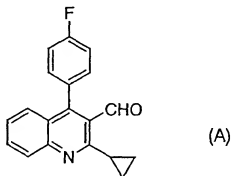


and a compound represented by the following formula (B):

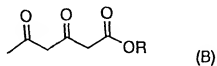


(wherein R denotes a hydrogen atom, an alkyl group, an aralkyl group, or an aryl group).

23. (New) The process for producing a compound according to claim 6, wherein the compound represented by the formula (I) is obtained by a condensation reaction between 2-cyclopropyl-4-(4-fluorophenyl) quinolin-3-carbaldehyde represented by the following formula (A):

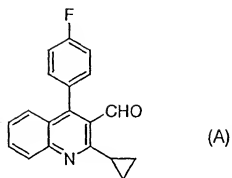


and a compound represented by the following formula (B):

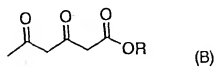


(wherein R denotes a hydrogen atom, an alkyl group, an aralkyl group, or an aryl group).

24. (New) The process for producing a compound according to claim 7, wherein the compound represented by the formula (I) is obtained by a condensation reaction between 2-cyclopropyl-4-(4-fluorophenyl) quinolin-3-carbaldehyde represented by the following formula (A):



and a compound represented by the following formula (B):



(wherein R denotes a hydrogen atom, an alkyl group, an aralkyl group, or an aryl group).